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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/382,834	08/25/1999	BRIAN SAMUEL BEAMAN	YO993-028BX	5735

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EXAMINER

NGUYEN, VINH P

ART UNIT	PAPER NUMBER
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2829

MAIL DATE	DELIVERY MODE
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05/14/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

09/382,834

Applicant(s)

BEAMAN ET AL.

Examiner

VINH P. NGUYEN

Art Unit

2829

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 24 January 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 29-139 is/are pending in the application.
- 4a) Of the above claim(s) 49 and 60-87 is/are withdrawn from consideration.
- 5) ☒ Claim(s) 29-44, 51, 53-59, 88-94 and 109-118 is/are allowed.
- 6) ☒ Claim(s) 45-48, 50, 52, 95-108 and 119-139 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 16 June 2005 and 20 June 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsman's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

1. According to the file record, there is no evidence showing that the instant application is a CIP of Application Serial No. 09/963,346, now U.S. Pat No. 5,371,654.
2. Claims 45-48,50,52, 59,95-102,107,124-139 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 45, it is unclear what “electrical connections” comprise of. Are they shown in any of drawings? It is also unclear how “a plurality of probe elements” are interrelated and associated with the electrical connections . Furthermore, on line 11,it is unclear what “a surface” is referred to?

In claim 50, it is unclear how “a plurality of said plurality of the flexible electrical contact elements (264,260) are interrelated and associated with the flexible contact elements making contact with the electronic device, printed circuit board, a packaging substrate as recited in claims 29,33-34,36-37 and 42-43. It is noted that the second substrates (236) are not the same as the second substrate (54).

In claim 52, it is unclear how “a plurality of said second substrates (236) are interrelated and associated with the second substrate as recited in claims 29,33-34,36-37 and 42-43. It is noted that the second substrate (236) is not the same as the second substrate (54).

In claims 95,132, it is unclear what “a projection” comprises of. Is it shown in any of drawings?

In claim 107, it is unclear how “a plurality of integrated circuits” and “the plurality of dies sites” are interrelated and associated with each other?

In claims 124-127, it is unclear how the plurality of second substrates are interrelated and associated with the electronic components and the flexible contact elements? Furthermore, it is unclear how “a plurality of said second substrates (236) are interrelated and associated with the second substrate . It is noted that the second substrates (236) are not the same as the second substrate (54).

The dependent claims not specifically address share the same indefiniteness as they depend from rejected base claims.

3. Claim 103-106,108,119-123 are rejected under 35 U.S.C. 102(b) as being anticipated by Bright et al. (Pat # 4,354,718).

As to claims 103-106,108,119-123, Bright et al disclose an apparatus as shown in figure 5 having a first substrate/printed circuit board (14) corresponding to an area of the electronic device to be probed (18) and the substrate having a first front surface, a second substrate/packaging substrate (12) mounted and connected to the front surface (top surface) of the first substrate (14) and having a plurality of flexible contact elements/wires (64) in original shapes. According to Bright et al , when the electronic device (18) is pushed down, the leads (42) of the electronic device (18) make contact with the flexible contacts (64)/wires and these flexible contacts flex and wipe the surfaces of the electronic device (18) (an area of the lead “64”/wires in which the flexible contacts wipe) and these flexible contacts (64)/wires substantially compliantly respond when the flexible contact elements are withdrawn from

contacting the electronic device (18). It is noted that the type of the device under test such as a semiconductor wafer is not given any patentable weight since it is considered as an intended use.

4. Claims 103-106,108,119-123 are rejected under 35 U.S.C. 102(b) as being anticipated by Zifcak et al (Pat # 4,793,814) (previously cited on the PTO-1449).

As to claims 103-106,108,119-123, Zifcak et al disclose an apparatus as shown in figures 3, 5-5A having a first substrate/printed circuit board (16) corresponding to an area of the electronic device to be probed (14) and the substrate having a first front surface (top surface), a second substrate/packaging substrate (12) mounted and connected to the front surface (top surface) of the first substrate (16) and having a plurality of flexible contact elements/wires (22) in original shapes. According to Zifcak et al, when the electronic device (18) is pushed down, the leads (42) of the electronic device (18) make contact with the flexible contacts /wires (22) and these flexible contacts (22) flex and wipe the surfaces of the electronic device (14) and these flexible contacts (64)/wires substantially compliantly respond when the flexible contact elements are withdrawn from contacting the electronic device (18). It is noted that the type of the device under test such as a semiconductor wafer is not given any patentable weight since it is considered as an intended use.

5. Claims 29-44,50-51,53-58,88-94 and 109-118 are allowed.

The prior art does not disclose a method for probing an electronic component by

contacting the electronic component with a plurality of flexible contact elements substantially compliantly respond when they are withdrawn from contacting the electronic component and wherein at least one of the flexible contact elements includes a protuberance at an end and in combined with other claimed method steps as recited in claims 29,33-34,36,37. Claims 30-32,35,38-41,50-51,53-56,88-90,93-94 depend on allowed claims 29,33-34,36-37, they are also allowed accordingly.

The prior art does not disclose a method for probing an electronic component by contacting the electronic component with a plurality of flexible contact elements substantially compliantly respond when they are withdrawn from contacting the electronic component by having the second substrate aligned with the first substrate by a socket which electrically interconnects the first substrate and the second substrate in a substantially fixed position with respect to each other and in combined with other claimed method steps as recited in claim 42. Claims 43-44,57-58,91 depend from allowed claim 42, they are also allowed accordingly.

The prior art does not disclose a method of probing an electronic component by contacting the electronic component with a plurality of flexible contact elements substantially compliantly respond when they are withdrawn from contacting the electronic component , wherein the flexible contact elements of the second substrate individual semiconductor dice on the semiconductor wafer and in combined with other claimed method steps as recited in claims 109-112. Claims 113 depend from allowed claims 109-112, they are also allowed accordingly.

The prior art does not disclose a method of probing an electronic component by

contacting the electronic component with a plurality of flexible contact elements substantially compliantly respond when they are withdrawn from contacting the electronic component, wherein the flexible contact elements of the second substrate contact at least one integrated circuit on the semiconductor wafer and in combined with other claimed method steps as recited in claims 114-117. Claims 118 depend from allowed claim 114-117, it is also allowed accordingly.

6. The search for claims 45-48,52, 95-102,107,124-139 have been performed. However, these claims are not allowed due to their deficiencies as mentioned in the current office action.
7. Applicant's arguments with respect to claims 29-48,50-59,88 filed on 01/24/08 have been considered but are moot in view of the new ground(s) of rejection.
8. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

9. This application contains claims 49,60-87 are drawn to an invention nonelected with traverse in the reply filed on 07/30/04. A complete reply to the final rejection must include cancellation of nonelected claims or other appropriate action (37 CFR 1.144) See MPEP § 821.01.

10. The proposed drawing corrections filed on 06/16/05 and 06/20/03 are not accepted by Examiner. Applicant is required to furnish a drawing under 37 CFR 1.81(c). No new matter may be introduced in the required drawing. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d).

11. It is requested that Applicants provide a new substituted specification and a new substituted drawings for a clearer record.

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to VINH P. NGUYEN whose telephone number is 571-272-1964. The examiner can normally be reached on 6:30AM-4:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, HA T. NGUYEN can be reached on 571-272-1678. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications

may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/VINH P NGUYEN/
Primary Examiner
Art Unit 2829